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AUTHOR Korkmaziar, Umran; Zumberg, Marshall F.
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ABSTRACT

The paper reviews studies of field articulation, that is, dimensions of field dependence-independence in social as well as perceptual domains. Field independence, one's ability to isolate an item from its surroundings, is contrasted with field dependence, manifested in one's difficulties analyzing and focusing on specific aspects of a task. The paper traces the experimental basis of the field articulation phenomenon from early Gestalt psychologists such as Witkin through ego psychologists such as Rapaport, Kagan, and Kogan. Studies are also addressed that deal with child rearing attitudes and cognitive styles, touching upon such variables as age, social class, sex, and maternal attitudes. The final series of studies considered examine the relationship of parental child rearing attitudes and cognitive styles in Turkey (marked by a conservative and inhibitive family structure dominated by an autocratic father). (CL)

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FIELD ARTICULATION: A REVIEW OF THE LITERATURE

Umran Korkmaziar, Ph.D.
Assistant Professor
Istanbul University
Istanbul, Turkey

Marshall F. Zumberg, Ph.D.
Assistant Prfessor
Wayne State University
Detroit, Michigan

EC 181715

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FIELD ARTICULATION:

A Review

Field Articulation

Field articulation, is an outcome of experimental research by Witkin and his associates (1954/1972). Its theoretical background is related to three different trends. These are Gestalt psychology, Werner's concepts of "differentiation" and "hierarchic integration" and ego psychology.

The experimental basis of the field articulation phenomenon relies on Gestalt psychology. In contrast to the behaviorists' explanation of behavior in terms of stimulus and response, the early Gestaltists emphasized the organizing role of the mind in perception and learning. To these early Gestaltists, the nature and characteristics of the outside world were constants; they did not consider the possibility that individual differences might influence perception.

As later researchers continued the study of perception, however, they observed significant differences in individuals' perceptions of physical phenomena. Werner, for instance, interested in both perception and cognitive development, introduced the principles of differentiation and hierarchic integration to explain individual differences in these processes. According to Werner, in the course of development, global or undifferentiated cognitive structures become slowly differentiated and hierarchially integrated. Thus, simple and indefinite cognitive structures become more articulated and organized. Individual differences and environmental conditions

have an effect on this process. Using these two concepts of Werner, Witkin developed his psychological differentiation theory and explained development from global cognitive style (field-dependence) to an articulated style (field-independence). The third trend in the theoretical background of the field articulation concepts is ego psychology, itself an offshoot of psychoanalytic theory. According to ego psychologists such as Rapaport, the condition of the ego determined the quality of perception and cognition. For them, certain cognitive structures are innate (the outcomes of genetic and constitutional determinants), and exist before the development of defense mechanisms. According to Hartman (1958, cited in Kagan and Kagon, 1970) There are some "mediating processes" (perception, memory, thinking) within the ego which develop independently from the conflicts of motivational factors postulated by Freud. Cognitive ego processes are the mediators between the organism and environment. Klein (1958, cited in Kagan and Kogan, 1970) has described the individual differences which he found among cognitive ego processes as "cognitive styles". Gardner (1959, cited in Kagan and Kogan, 1970) in his study of cognitive stlyes found that individual differences are more closely related to the structure of the organism itself than to motivational conflicts. Ego psychology has been useful in explaining differing cognitive styles such as field articulation within the frame of psychoanalytic theory. Witkin et al. (1954/1972) have in fact found some relationships between field articulation and defense mechanisms. The different defense mechanisms of field-dependent and

field-independent people have been explained by ego psychology. Witkin and his associates initially wanted to determine whether there are differences in people's mode of perception. To examine the question of how people locate the upright position in space, four test were developed: the Rod-and-Frame Test (RFT), the Body-Adjustment Test (BAT), the Room-Adjustment Test (RAT), and the Embedded Figures Test (EFT) (Witkin et al., 1954/1972).

The field articulation phenomenon was defined by performance on these perceptual test. In one of these tasks, for example, a person is seated in a completely darkened room, facing a luminous frame which surrounds a movable luminous rod. The frame is tilted away from the true perpendicular. The person is asked to bring the rod to a position that he perceives as upright. In another situation, the person is asked to find a simple figure embedded within a larger, more complex design. In both situations, to be successful, it is necessary for the individual's perception to be independent from the field (i.e., the frame or the complex figure).

Field dependence-independence is an indicator of an articulated versus a global way of perceiving the world. The global-articulated style represents a person's ability to overcome an embedding context. "Articulated cognitive functioning" includes both analysis and structuring in perceptual and intellectual domains (Witkin, Moore, Goodenough and Cox, 1975). Witkin and his associates found that a person with global cognitive mode (field-dependent) tends to perceive the upright exclusively with reference to the visual field. At the other extreme, an individual with an articulated cognitive mode (field-independent) locates the upright entirely on the basis of bodily sensation and is uninfluenced by the visual field.

Many investigators have also been interested in cognition and perception. Among these are Hebb (1966), Garner (1966), Lewin (1935, 1951), Piaget (1952, 1954) and Werner (1948,1957) (all cited in Kagan and Kogan, 1970). Except for Witkin and his colleagues, no one has focused on field articulation per se, but many researchers have investigated the relationships between field articulation and some variables such as child-rearing attitudes, reading ability, mathematical ability, sex role, psychological adaptation, intelligence, etc. (Abelew, 1974; Buriel, 1978; Busse, 1969; Claevs and DeBoeck, 1976; Dyk and Witkin, 1965; Maloney 1974).

Child-Rearing Attitudes and Cognitive Styles

The majority of studies on child-rearing attitudes and children's cognitive development have shown a significant relationship between these variables (Abelew, 1974; Busse, 1969; Claeys and DeBoeck, 1976; Dyk and Witkin, 1965; hess and Shipman, 1965). Such findings indicate that children who are reared democratically and given autonomy tend to be more field-independent than children who are reared in an authoritarian manner.

Witkin et al. (1962/1974 cited in Goodenough and Witkin, 1977) reported that mothers of children with global as compared to articulated styles used different approaches in rearing their children. In contrast to mothers of field-independent boys, it was found that mothers of field-dependent boys limited the child's activities in the community; emphasized conformity; discouraged assertive and aggressive behavior; and did not stimulate the child to assume responsibilities.

Dyk and Witkin (1965) and Witkin et al. (1962/1974 cited in Good-

enough and Witkin, 1977) observed in their studies that parents of field-dependent children more commonly used severe training as a means of controlling their children than did parents of field-independent children.

Important child-rearing differences between mothers of field-dependent and field-independent 10-year-old boys and girls have also been found by Seder (1957, cited in Maloney, 1974). Seder's findings revealed that mothers of field independent children were permissive, democratic, and encouraging of independent behavior, and tended to allow their children to set their own standards. On the other hand, mothers of field-dependent children were coercive in child-rearing methods and authoritarian in administering punishment.

In their study, Hess and Shipman (1965) found that low SES mothers controlled their children more strictly and were more authoritarian than middle or high SES mothers. As a result, these children were more passive and dependent than middle and upper SES children.

Busse (1969) studied child-rearing factors which influence the development of flexible thinking. He found that the attitudes and social class of parents (48 Afro-American mothers and 48 Afro-American fathers from an almost exclusively lower-class AfroAmerican Community) were related to the development of their fifth-grade sons' flexible thinking, defined as the ability to consider alternative means to a given end. Quadratic relationships were found linking flexible thinking with parental child-rearing atitudes. It was also reported that boys of high social status showed more flexible thinking than boys of middle or low social class.

Claeys and DeBoeck (1976) studied the influence of certain parental

characteristics on children's primary mental abilities and field-independence. They administered the CEFT and measures of verbal ability, perceptual speed, quantitative ability, and spatial abilities to 5-to-7 year-old children. These variables were correlated with the main factorial dimensions of the parents' answers on the Parental Attitude Reasearch Instrument (PARI). The results of this study supported previous findings of a positive relationship between children's field-independence and parental emphasis on independence and achievement.

Cecchini and Pizzamiglio (1975) investigated the development of field-independence as a function of age (5 to 10), social class, and sex. They reported that sex did not seem to be a significant factor in the development of field-independence of children. Analysis of variance performed on the CEFT total scores showed a statistically significant effect of age ($F=39.65$, $df=5/168$, p .001) and class status ($F=106.23$, $df=1/168$, p .01). Interaction of age by class status was also significant.

A small group of investigators found no relationship between child-rearing attitudes and cognitive development. Domash and Balter (1976) studied maternal behavior and psychological differentiation in preschoolers. No statistically significant relationship was found between authoritarianism in the mother and psychological differentiation in the child. Domash and Balter also found no significant difference in psychological differentiation between girls and boys.

In her study of maternal attitudes and cognitive functioning in children, Ribback (1957) also found no relationship between maternal attitudes and cognitive functioning. The instruments used in this

study were the Muller-Lyer Illusion and an embedded photographic figures task. Both of these instruments involve isolation of parts from the perceptual field and are considered to be similar the Embedded Figures Test (EFT). Maternal attitudes were assessed by the PARI. Her findings showed no relationship between parental atitudes and children's cognitive style. She suggested that certain variables such as age and sex, which were uncontrolled in her design, might have obscured the relationship under investigation (Ribback 1957 cited in Maloney, 1974).

Child-Rearing Attitudes and Cognitive Styles in Turkey

Parental child-rearing attitudes in Turkey have been studied by several researchers. Their findings do not indicate a definite trend in terms of a relationship between child-rearing attitudes and cognitive styles of children. Koknel (1970) and Ozturk (1969) reported that the conservative and inhibitive nature of Turkish family structure hampers the development of independence in Turkish children. In the Turkish Family, the father is dominant and makes all the decisions concerning the family (Koknel, 1970).

Canborgil (1973) studied the relationship between a group of village mothers and their children and found that the mother's attitudes did not affect their children's success on the performance of tasks involving Piaget's cognitive operations.

Okman (1979) examined the relationships between parental child-rearing attitudes and the field articulation of thirteen year old boys and girls. She found a negative relationship between the field articulation of children and the dimension of parental atti

tude of fostering autonomy and parents personal characteristics. This means that children who perceived their parents as fostering autonomy were more field-dependent than field-independent. This finding was consistent neither with Okman's expectations nor previous research results. No sex or SES differences were reported.

In adapting the Parental Attitude Research Instrument (PARI), developed by Schaefer and Bell (1958), to Turkish mothers in Ankara, LeCompte et al. (1978) selected mothers representing lower. middle, and upper SES. They found that mothers of the lower SES tend to be more overprotective and less democratic that the upper SES mothers. The upper SES mothers had the highest scores in the rejection of the homemaking role and the marital conflict items indicating that upper SES mothers have more marital problem. These findings resemble the result obtained in similar studies of other countries.

By administering the same instrument to parents of children with psychological problems and to parents of children with no problems, Kalavcioglu (1978) found a difference among the fathers in the overmothering dimension. Fathers of problem children strongly agreed with several specific items such as: "An overactive child is most probably a happy child"; "it is definitely the responsibility of the mother to know the most personal thoughts of her child"; "Alert parents should try to find out all thoughts and ideas of their children".

Fathers of children with no problems strongly agreed with items such as: "If you give strict training to your child he will thank you"; "Children should know what their parents sacrifice for them".

In the democratic attitude dimension, no statistically significant differences were found among groups of parents.

Summary

In summary, field articulation includes the dimensions of field-dependence and field-independence. Field-independence is a person's ability to isolate an item from its surroundings. A field-independent individual is able to separate relevant from irrelevant details and can analyze and focus on specific aspects of a task. Some people, however, have difficulty analyzing and focusing on specific aspects of a task. These people have been described by Witkin and his associates as field-dependent.

The dimension of field-dependence-independence can be observed in social as well as in perceptual domains. Field-independent people have been found to do well in cognitive restructuring tasks, but they are often limited in social sensitivity and social skills. Field-dependent people, on the other hand, have greater social sensitivity and social skills but are not as competent in cognitive restructuring tasks as field-independent people.